

Health and Community Design: The Impact of the Built Environment on Physical Activity



By Lawrence D. Frank, Peter O. Engelke, and Thomas L. Schmid
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This book grew out of a comprehensive research agenda on policy and environmental actions to promote physical activity, supported by the Centers for Disease Control and Prevention. The work began with environmental health studies assessing the relationship between the built environment, travel choice, and air quality in Seattle, Washington, and Atlanta, Georgia, and has culminated in a very readable text that describes how aspects of the built environment influence public

health. The proposed conceptual model uses a multilevel framework to show how causality flows from the built environment through physical activity patterns to public health outcomes. The authors argue that most American communities, through their capacity to encourage or discourage health-promoting behaviors (such as walking and bicycling), are important contributors, as well as the potential source of solutions, to many current public health problems.

Chapter 2 provides historical background for understanding the forces that helped legitimize the "decentralized" cities of the mid- to late twentieth century. Chapters 3 and 4 discuss the various types of physical activity and review evidence showing links between level of physical activity (walking and bicycling), chronic disease, overweight and obesity, and overall quality of life, emphasizing that modest increases in such activities can significantly improve Americans' overall health. Also included is a discussion of the ways in which the built environment makes nonmotorized travel difficult. Chapter 5 addresses the divergent needs and physical activity patterns of children, the elderly, and the poor. Chapters 6 through 9 divide the built environment into three basic components—transportation systems, land use patterns, and urban design characteristics—explaining how each component influences physical activity. Chapter 10 summarizes findings from the authors' research in Atlanta, Seattle, and San Diego, California, citing evidence of associations between the built environment, levels of activity, and overweight and obese status.

In discussing research findings, the authors point out methodological problems and the need to provide more objective measurements

of physical activity patterns. In the Atlanta study, the authors found significantly lower obesity rates for those who reside in the more compact, denser, more pedestrian friendly and "transit supportive" areas of the Atlanta region, suggesting that the connections between the built environment and health are at least partially mediated by physical activity. In a concluding chapter, the authors discuss growing agreement among interest groups about the dysfunctional nature of the dominant types of development in the United States, and address policies underlying such development: Specifically, individual policies in any one sphere shape policy in the other spheres, and harmonization is a key challenge. Finally, the authors recommend a shift in thinking across many policy areas and within all levels of government toward an alternative development paradigm that is more conducive to physical activity.

This book is enormously interesting and accessible to a wide audience. The argument that physical activity mediates important associations between infrastructure and health is persuasive, and the authors provide numerous international examples that suggest a range of possible solutions within the United States. The recommendation to better integrate public policies flows from the evidence and is an excellent goal. With respect to immediate steps that might be taken by individual communities to begin encouraging nonmotorized travel, the authors suggest that mixed-use development has its greatest relevance at smaller scales. Rethinking the mix of commercial, retail, and residential use at the local level may be one of the least expensive and most effective first steps, ensuring that neighborhoods remain safe and convenient for pedestrians and bicyclists at all times of the day.

Future editions of this book might also include some attention to the health/mental health benefits of community cohesion, efficacy, and social capital—fortunate by-products of improved connectivity, mixed land use, and other urban design characteristics. These important aspects of community quality are appropriate yet somewhat neglected areas of concern for urban planners. In addition, the mediating role of the health service delivery system is also a topic that deserves mention and would increase the relevance of this work to a host of health service delivery planners.

This is a thoughtful and thought-provoking addition to both public health and urban planning and should be required reading for public health students and practitioners who seek structural solutions to community health problems.

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